REMARKS

This application has been reviewed in light of the Office Action dated September 11, 2002. Claims 1-9 remain pending. Claims 1-4 are in independent form, and have been amended.[1] Favorable reconsideration is requested.

Initially, in accordance with the requirement set forth at page 6 of the Office Action, submitted herewith is a sworn English translation of Japanese Application No. 11-097852, filed April 5, 1999, from which the present application claims the benefit of priority. The Examiner is respectfully requested to confirm the receipt of that sworn translation, and that the present application is entitled to a priority benefit based on that Japanese application.

Claims 1-9 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent 5,760,538 (Mitsutake et al.), hereinafter "*Mitsutake*".

Independent Claim 1 is directed to an electron source apparatus which has an electron source and a counter substrate arranged to face the electron source and in which the electron source has on a substrate a plurality of row-direction wiring lines, a plurality of column-direction wiring lines, and insulating layers formed at intersections between the row-direction wiring lines and the column-direction wiring lines. A plurality of electron-emitting devices are connected to the row-direction wiring lines and the column-direction wiring lines, and a spacer maintaining an interval between the electron source and the counter substrate is arranged on some of the row-direction wiring lines among the plurality

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[1] The changes made to Claims 1-4 have not been made for purposes related to patentability, and merely are clarifying in nature.

of row-direction wiring lines. The apparatus comprises a circuit for sequentially turning on the plurality of row-direction wiring lines, and a controlled current application circuit for applying a predetermined controlled current to the plurality of column-direction wiring lines.

A notable aspect of the apparatus of Claim 1 is that the spacer is arranged on some row-direction wiring lines among a plurality of row-wiring lines. Since a spacer is arranged on some wiring lines but not on others, the resistances of all of the row-wiring lines are not the same.

Mitsutake relates to a display panel comprising a rear plate 15, lateral walls 16, and a face plate 17 to form an envelope that is sealed. A substrate 11 is rigidly secured to the rear plate 15 and cathode devices are formed on the substrate 11. Col. 20, lines 46-59 of *Mitsutake* refers to a line memory 1705 for storing a set of data for a line, which are signals Id1 through Idn, for a required period of time according to control signal Tmry coming from control circuit 1703. The stored data are sent out as I'd1 through I'dn and fed to modulation signal generator 1707. The modulation signal generator 1707 is a signal source that appropriately drives and modulates the operation of each surface-conduction type electron-emitting device, and output signals of the device are fed to the surface-conduction type electron-emitting devices in display panel 1707 via terminals Dy1 through Dyn.

The Office Action asserts that the modulation signal generator 1707 of *Mitsutake* corresponds to the controlled current application circuit recited in Claim 1. However, Applicants respectfully disagree with this assertion for the following reasons.

Mitsutake applies a voltage to row-wiring lines. The resistances of all of the row-wiring lines are not the same. Thus, when a voltage applied to a terminal of row-a direction wiring line is constant, the currents (determined by Ohm's law: V=RI) flowing through the electron emitting devices are different from one another according to the respective resistances, and the electron emission performances of those devices may vary.

The controlled current application circuit recited in Claim 1, on the other hand, applies a predetermined controlled current rather than voltage to the plurality of column-direction wiring lines. Accordingly, even if the resistances of the wiring lines are different from each other, a desired current is provided through the electron-emitting devices, thereby enabling a controlled electron emission to be provided from the electron-emitting devices. Nothing is *Mitsutake* would teach or suggest a controlled current application circuit for applying a predetermined controlled current to a plurality of column-direction wiring lines, as recited in Claim 1. Accordingly, Claim 1 is deemed clearly patentable over *Mitsutake*.

Independent Claims 2-4 are each similar in many respects to Claim 1, and also recite a controlled current application circuit for applying a predetermined controlled current to a plurality of column-direction wiring lines. For the reasons given above, Applicants respectfully submit that nothing in *Mitsutake* would teach or suggest those features, and thus Claims 2-4 also are believed clearly patentable over that reference.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore also believed patentable over *Mitsutake* for the same reasons as are those independent claims. Since each dependent

claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

REQUEST FOR CONSIDERATION OF PREVIOUSLY CITED ART

On September 6, 2001 Applicants filed an Information Disclosure and an accompanying Form PTO-1449 (copy enclosed) in the Patent and Trademark Office, as evidenced by the attached copy of the return receipt postcard bearing the official stamp of receipt of the Patent and Trademark Office. However, Applicants have not yet received an initialed copy of the Form PTO-1449 confirming that the art cited therein has been considered and made of record in this application. As such, Applicants hereby respectfully request that the Examiner consider and make of record in this application the art cited in the Information Disclosure Statement, and also request that the Examiner forward an initialed copy of the Form PTO-1449 to Applicants as confirmation thereof. If the Examiner needs copies of any of the references listed in the Form PTO-1449, Applicants will gladly supply same upon request.

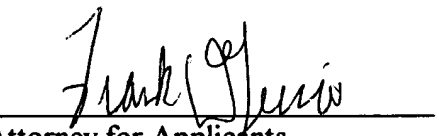
CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by

telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Amended) An electron source apparatus which has an electron source and a counter substrate arranged to face the electron source and in which the electron source has on a substrate a plurality of row-direction wiring lines, a plurality of column-direction wiring lines, insulating layers formed at intersections between the row-direction wiring lines and the column-direction wiring lines, and a plurality of electron-emitting devices connected to the row-direction wiring lines and the column-direction wiring lines, and a spacer for maintaining an interval between the electron source and the counter substrate is arranged on some of the row-direction wiring lines among the plurality of row-direction wiring lines, [characterized by] comprising:

a circuit for sequentially turning on the plurality of row-direction wiring lines; and

a controlled current application circuit for applying a predetermined controlled current to the plurality of column-direction wiring lines.

2. (Amended) An electron source apparatus which has an electron source and a counter substrate arranged to face the electron source and in which the electron source has on a substrate a plurality of row-direction wiring lines, a plurality of column-direction wiring lines, insulating layers formed at intersections between the row-direction

wiring lines and the column-direction wiring lines, and a plurality of electron-emitting devices connected to the row-direction wiring lines and the column-direction wiring lines, and spacers for maintaining an interval between the electron source and the counter substrate are arranged at different positions on the plurality of row-direction wiring lines, [characterized by] comprising:

a circuit for sequentially turning on the plurality of row-direction wiring lines; and

a controlled current application circuit for applying a predetermined controlled current to the plurality of column-direction wiring lines.

3. (Amended) An electron source apparatus which has an electron source and a counter substrate arranged to face the electron source and in which the electron source has on a substrate a plurality of row-direction wiring lines, a plurality of column-direction wiring lines, insulating layers formed at intersections between the row-direction wiring lines and the column-direction wiring lines, and a plurality of electron-emitting devices connected to the row-direction wiring lines and the column-direction wiring lines, and a spacer for maintaining an interval between the electron source and the counter substrate is electrically connected to some of the row-direction wiring lines among the plurality of row-direction wiring lines, [characterized by] comprising:

a circuit for sequentially turning on the plurality of row-direction wiring lines; and

a controlled current application circuit for applying a predetermined controlled current to the plurality of column-direction wiring lines.

4. (Amended) An electron source apparatus which has an electron source and a counter substrate arranged to face the electron source and in which the electron source has on a substrate a plurality of row-direction wiring lines, a plurality of column-direction wiring lines, insulating layers formed at intersections between the row-direction wiring lines and the column-direction wiring lines, and a plurality of electron-emitting devices connected to the row-direction wiring lines and the column-direction wiring lines, and spacers for maintaining an interval between the electron source and the counter substrate are electrically connected to the row-direction wiring lines at different positions on the plurality of row-direction wiring lines, [characterized by] comprising:

a circuit for sequentially turning on the plurality of row-direction wiring lines; and

a controlled current application circuit for applying a predetermined controlled current to the plurality of column-direction wiring lines.